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The Indiana State Emergency Management Agency and Department of Fire and Building Services

SHIPMENTS OF RADIOACTIVE WASTE PASS THROUGH INDIANA

SEMA Staff Closely Monitors Movement of Transuranic Waste

Early in the morning of December 18, 2002, Dave Crose, the Technological Hazards Division Director of the State Emergency Management Agency (SEMA) and Joseph Bell, SEMA's Director of Radiation Programs, were seated at a computer in the State Emergency Operations Center. The computer was equipped with a very sophisticated program called TRANSCOM - Transportation Tracking and Communications System. Displayed on the computer monitor was a map that portrayed a transportation route from Ohio, through Indiana, and on westward to the state of Washington. At approximately 4:30 am, an icon on the screen representing three trucks crossed into Indiana from Ohio. "It's here", Bell said. The first in a series of Shipments of Radioactive Materials through the Midwestern States had finally begun. On each truck was a special container holding ten, 55 gallon barrels of Remote-



Dave Crose (L) and Joseph Bell use TRANSCOM to track the exact location of a radioctive waste shipment as it passes through Indiana.

handled (RH) Transuranic (TRU) waste, which departed the West Jefferson, Ohio site, bound for Hanford, Washington. This event

See "Shipment" page 2

INSIDE

Anti-Terrorism Division Update 3

SOPs - The Anchor of On-Scene Safety 5

Annual National Fire and Emergency Services Dinner 7



2002 Pridgen Award 8

"Shipment" from page 1



Dave Crose (Left) and Joseph Bell (Center) provide a status briefing using TRANSCOM to SEMA Deputy Director Phil Roberts.

constituted the first intersite shipment of RH-TRU in the nation in over 13 years.

To appreciate what this shipment of radioactive waste means, you need to know what this "stuff" is and where it came from. The first shipment was "surface contaminated material" (Transuranic Waste). That means certain items such as gloves, boots, wrenches, etc. became contaminated (radioactive) during the process of creating/making nuclear weapons. This material is not radioactive in and of itself. Particles of radioactive material were deposited on the items. These materials did not warrant decontamination and were safely stored for eventual disposal. Some of this "stuff" - or, for want of a better term - "trash", has been safely stored for as long as 40 years.

Another question to be addressed is "why move this stuff if it is safely stored?" Environmental cleanup of contaminated lands, so these areas can be safely re-used, is one of the primary reasons for this program. On-site storage was always intended to be temporary. Permanent disposal - in most cases, final, long-term storage/safeguarding - has always been necessary and planned. This "trash" has a radioactive half-life from as little as 20 years to, well, "a lot longer than you or I will ever be around", says Bell. "We really need to get these areas cleaned up so folks can enjoy the benefits that this land can afford them -

whether it be recreational, commercial or residential." The storage of this material in Washington is also only temporary. The final resting-place will be in New Mexico where a permanent storage site is being developed.

For those of you with keen, mathematical minds, a 20 year half-life for something that is 40 years old should mean it's safe, right? Nope! Half-life means that the radiation's effectiveness has been reduced by half over a period of 20 years. It goes on and on - half of that half for another 20 years, etc. It's still dangerous. Get the idea?

Of major concern is the safety of the shipping process. First, the 55-gallon drums have been

See "Shipment" page 4

SAFETY

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ANTI-TERRORISM DIVISION UPDATE

In our summer 2002 issue of Hoosier Safety we announced the establishment of the Anti-Terrorism Division. The following article provides an expanded look at the roles and responsibilities of our newest addition and a snapshot of current initiatives.

The Anti-Terrorism Division is SEMA's newest addition. Established in May of 2002, this new division, created from vacant positions held elsewhere in the agency, currently has three staff members: Division Director - Manuela Johnson; First Responder Liaison - Larry Copley; and Clerical Assistant - Alpha Joyner. The Anti-Terrorism Division is responsible for the administration of the First Responder State Domestic Preparedness Equipment Grant Program.

The State Domestic Preparedness Equipment Program provides funding to enhance the capacity of state and local jurisdictions to respond to, and mitigate the consequences of, incidents of domestic terrorism involving the use of a Weapon of Mass Destruction (WMD). Although monies were allocated for the program in calendar years 1999, 2000, and 2001 the first distribution of monies to the states began late in 2001 and early 2002.

To receive the grant monies an assessment of state and local risks and capabilities and capacities had to be completed and submitted to the Department of Justice (DOJ) Office of Domestic Preparedness. SEMA, with the assistance of the county emergency management directors, conducted and submitted the assessment to the Department of Justice. Based upon the assessment SEMA then developed a three-year strategy for the allocation of funds to enhance the state and local emergency first response capabilities. DOJ defines emergency first responders as Fire Service, HazMat (Hazardous Materials), EMS (Emergency Medical Services), Law Enforcement, Public Works and Public Health and Emergency Management.

The State Strategy was created by a prioritization team which included state level representatives of the first responder disciplines including the Indiana State



The New Folks on the Block. L-R: Manuela Johnson, Anti-Terrorism Division Director; Larry Copley, First Responder Liaison; Alpha Joyner, Clerical Assistant

Police, Department of Health, Department of Environmental Management, State Fire Marshal's Office, State EMS Commission and SEMA. The Strategy was relatively simple. First, a baseline capability for all first responders throughout the state was established. Second, a backup mechanism on a regional basis to address communities' needs above and beyond their own capabilities was created. The regional response team concept establishes 11 regions in the state where multi-disciplinary teams will be formed. These multi-disciplinary teams include Hazardous Materials Technician rated teams, as well as those with capabilities in law enforcement, public health, and EMS.

The 1999 through 2001 grant monies have been allocated to provide personal protective equipment for first responders at local and state levels. These first responders must be trained to OSHA 1910.120 Hazardous Materials Operations level to qualify for the personal protective equipment kits. These kits will allow first responders to protect themselves as they take defensive actions and assist citizens with relocating to safe areas in the event of an act of

"Shipment" from page 2

modified to withstand excessive shock, temperature and pressure extremes. These are not the drums you see cut in half for backyard barbecues! The transportation containers, which are called "Type B Containers", into which the 55 gallon drums are placed, meet very rigorous safety standards. The containers are built to withstand a 30-foot drop onto a hard surface, and a 15-foot drop onto a pointed object; they must withstand a 1400-degree fire for 30 minutes; they are placed in 50 feet of water for eight hours to ensure there are no pressure problems. In the pressure-testing phase, if there is any release of air from the container, and the volume released is enough to fill a Ping-Pong ball, the container fails! Each shipping container is tested - no exceptions! (If you think the above testing is stringent, you should hear about the testing involving a locomotive running into



Officially known as the "10-160B Cask/Trailer Bed", a tractor/trailer loaded with the initial Transuranic Waste shipment passes through Indiana.

a truck carrying one of these shipping containers, and a truck, with a container, moving at 60 MPH, running into a brick wall - but that's for another article!)

This type container has been in use for many years - in Europe and the United States. There have been a few accidents, but in each instance, there has been no leakage of material! Each of these containers cost \$500,000, and are, of course, re-useable.

The qualifications of the company contracted to do the transporting of this waste, Tri-State Motor Transit of Joplin, Missouri, went through a competitive bidding process where they proved they

were capable of safely handling the job. For example: leach driver has at least 100,000 miles of driving experience. If any driver has an accident - even in their privately owned vehicle - they were disqualified from driving for this particular shipment. Drug testing is accomplished during roadside stops. Illegal use is automatic disqualification. (During this shipment, drivers stopped their trucks every hour and did a safety "walk-around". They were only allowed to stop at designated locations. Their movement was tracked by satellite.) Each driver has received training in use of radiation detection equipment. Every driver has a high level of maintenance training (on the specific truck which they operate) equivalent to that received by our State Police Inspectors. These folks are not your typical over-the-road truck drivers - these are extremely well trained individuals. The vehicles (trucks and trailers) must meet certain (high) standards imposed by the Department of Energy (DOE). Should a breakdown occur that cannot be rectified by the driver, a replacement vehicle must be on-scene within eight hours.

Speaking of training, there was a considerable amount of training provided both <u>for</u> our State Emergency Management personnel involved in this project and <u>by</u> those same folks. Along with familiarization training to acquaint our people with the transportation process, Joseph Bell and Dave Crose attended train-the-trainer courses in New Mexico which allowed them to provide classes on response to a radioactive material transportation accident/incident to local/county first responders. In 2001 over 500 first responders were trained by this program, and in 2002 over 600 were trained. Bell taught these classes and was assisted by Mr. Rex Bowser, Indiana State Board of Health.

Another facet of training is the number of personnel who have become proficient at using the TRANSCOM program. The importance of ensuring that there is always an adequate cadre of individuals both familiar with the operation of the state EOC and able to use the TRANSCOM system cannot be understated. At the present time, SEMA has five people able to fill in for Bell and Crose in event they

Winter 2003

Many people begin each New Year with a list of resolutions (which may or may not be kept!). It has been suggested by some that a better idea would be a review of an extremely important part of any emergency response program - your organization's SOPs - and resolve to make them better (if practical). In that light we offer the following article, which appeared in the winter 1999 issue of Our Watch, written by the then General Counsel for SEMA, Mr. Bill Nicholson.

STANDARD OPERATING PROCEDURES: THE ANCHOR OF ON-SCENE SAFETY

Perhaps the most important aspect of emergency response is preserving the safety of responders and the public. Meeting this goal has challenged every response entity, including fire protection, emergency medical services ("EMS"), and law enforcement. The larger an incident, the greater is the difficulty in answering the challenge.

During incident response by individual emergency response organizations, many issues appeared repeatedly over the years. Too many people were reporting to one supervisor. Emergency response organizations had unclear structures. Reliable incident information was hard to come by. Communications were frequently inadequate and incompatible. There was no structure for coordinated planning. The lines of authority were unclear. Responders within a response agency had differing terminology. Objectives were frequently either unclear or unspecified. Often, resources were dispatched before tasks for those resources were established. The issues mentioned above sometimes endangered the lives of both responders and the public the responders were trying to assist.

One response to these concerns by individual emergency response agencies is development of Standard Operating Procedures ("SOPs") or standard operating guidelines ("SOGs") to help ensure the safety of response personnel and the public and to promote consistency at incident scenes. Properly utilized, SOPs are a key element in protecting from personal tragedy as well as serious danger of legal liability. In a large scene with many agencies involved, SOPs become perhaps even more crucial.

The first emergency response organizations to develop and use standardized procedures at response scenes were fire departments. As fire departments grew from their informal roots, they began to address safety concerns through adoption of internal controls over daily fire response operations. These controls

were formerly known as rules of engagement. Now these guidelines are more commonly referred to as SOPs. As originally adopted, SOPs were oriented toward assuring the safety of firefighters by ensuring that fires would be approached consistently. One example of an SOP which was early adopted is the requirement that not all firefighters enter a burning structure at the same time.

As time went on, different fuel combinations and more sophisticated equipment led to the need for ever more elaborate SOPs. Fires became more complex and SOPs have moved from procedures which were "chiseled in stone" to SOGs. The movement to SOGs allows increased flexibility in responding to complex fire scenes, encouraging the full utilization of the firefighters' knowledge, skills and abilities. This transition has not proven easy for some emergency response organizations. One 25-year career fire service veteran recently observed that "Many of the departments throughout Indiana are experiencing some problems in transition from SOPs to SOGs. Primarily, it is still the management pyramid that is etched into stone in many of the fire departments and this system leaves little room for variables in decision making on the scene of the emergency by the first arriving company officer."

Other emergency response organizations have learned from the fire service's experience, and have developed their own SOPs to address the specific areas of concern that they face. Unfortunately, despite the universal recognition that good SOPs or SOGs are necessary for responder safety, time and again their lack is cited as the cause of injuries and deaths. The National Institute for Occupational Safety and Health ("NIOSH"), for example, frequently points out the lack of proper SOPs as a cause for firefighter fatalities. In a recent death due to a ceiling collapse,

Winter 2003

"New Division" from page 3

terrorism. In 2002, 16,000 first responder kits were ordered for distribution at the local level within each of the counties. The county EMA directors, with local assistance, are putting the kits together and are in charge of the distribution of the kits to the first responder organizations within their counties. In addition, the Anti-Terrorism Division has started the bid process to equip the regional response teams. The Division has been working closely with the Public Safety Training Institute, the State Fire Marshal's Office, and the EMS Commission to create a seamless training effort that will address the needs of all first responders. Any first responders wishing to achieve the Operations Level Hazardous Materials Training will be able to do so in 2003 through a number of training mechanisms (Internet, on-site lecture, video, etc.). The Division is also working with the Law Enforcement Academy to integrate the Operations Level Training into the Law Enforcement Academy Curriculum so that all new law enforcement officers will be trained before they arrive at their agency.

The Division has presented information about the grant program in 10 regional first responder meetings, at the Indiana Association of Cities and Towns Conference, the Indiana Trustees Conference, the Governor's Summit on Homeland Security, Ft. Wayne Regional Homeland Security Conference, Kendalville Publishing Company Homeland Security Conference, and numerous other meetings. The Division Director serves as the central point of contact for advanced training opportunities offered to emergency responders funded through the Department of Justice Office of Domestic Preparedness.

The Anti-Terrorism Division works in concert with the Preparedness Division of SEMA to assure consistency in the Anti-Terrorism Planning, Training, Exercising and Equipping efforts. The Division's role is to assure that Indiana first responders have the knowledge, skills and ability to respond safely to an incident potentially involving weapons of mass destruction (WMD) and to keep their communities safe from the harmful effects of such an incident. This role is best achieved through effective communications.

The Anti-Terrorism Advisory Committee was established in 2002 to enable local first responders to

provide feedback to the Division through their own professional organizations. This Committee includes members from the following organizations: the Indiana Volunteer Firefighters Association, the Professional Firefighters Union, the Indiana Fire Chiefs Association, the Firefighters Association, Indiana Alliance of Hazardous Materials Responders, Indiana Association of Chiefs of Police, Indiana Sheriff's Association, Indiana Bomb Technicians, Indiana Campus Law Enforcement Association, Hospital Based EMS Providers, Fire Department Based EMS Providers, Indiana Ambulance Association, Indiana Public Health Association, Indiana Environmental Health Association, and the Indiana Emergency Management Alliance.

"Shipment" from page 4

are unavailable during a TRU shipment.

The focus for transportation accident training is far different than that for ingestion pathway accident training. Ingestion what? You know - when a nuclear power plant has an accidental release of radiation, which then drifts along with the wind. Good news! There has never been an ingestion pathway "release" in Indiana. Although the two levels of training provided in these classes is radiation unique, segments pertaining to planning, incident command, and use of equipment, etc., apply to emergency response situations across the board. Thus, the training (paid for by DOE, by the way) becomes a huge side benefit for us. There are plans by the DOE to provide radiation response training to hospital emergency rooms. The threat of a terrorist attack involving a radioactive device is a real threat - and we are becoming more prepared to respond to such an attack as a result of the training received under this program.

The TRU waste shipments will occur through the year 2005. At press time, two more shipments had been scheduled - for February 3rd and 24th, 2003.

A great deal of behind-the-scenes work occurred prior to this first TRU waste shipment. Dave Crose was appointed by the Governor of Indiana to the CSG

Winter 2003

"SOPs" from page 5

NIOSH Fatality Investigation Report 99F-4, one recommendation for avoidance of similar fatalities stated that: "Fire departments should ensure that all SOPs are updated and adequate . . . and that all officers and firefighters are trained and knowledgeable in all SOPs."

A senior emergency response official summed up the challenge that many emergency response organizations face in adopting and using SOPs in this way: "Everybody knows that emergency response groups must have SOPs in place. They get SOPs from many sources: other departments, various publications or the internet. Unfortunately, the group may get a perfectly good set of SOPs and then put them away in a drawer somewhere. SOPs are no good unless the group trains both leaders and line personnel to their SOPs and requires them to sign off that they have been so trained." These steps lead both to personal safety and to liability prevention.

Good SOPs provide the solid foundation upon which to anchor the safety of emergency responders.

SECURING OUR HOMEIAND

National Fire and Emergency Services Dinner and Seminars To Focus on Nation's Security

The Congressional Fire Services Institute announced "Securing Our Homeland" as the theme of the 1511, Annual National Fire and Emergency Services Dinner on April 30, 2003 at the Washington Hilton and Towers. Approximately 2,000 leaders from the fire and emergency services are expected to attend this annual event to engage in discussions with leading members of Congress and Administration officials all to honor the contributions of our nation's First Responders.

As Congress and the Administration begin to lay the groundwork for the new Department of Homeland Security, it is imperative for the fire service to stay apprised of - as well as participate in - the process. Throughout the day, CFSI will host a series of workshops featuring administration officials who will play a major role in the new department. They will discuss the transfer of power from the Federal Emergency Management Agency to the new Office of Emergency Preparedness and Response, and funding programs addressing terrorism training and response.

In addition, CFSI will offer workshops to help fire officials understand the legislative process, featuring government affairs representatives from the major fire service organizations. The schedule of events is designed to provide an insider's perspective on how

federal fire service policies are developed and implemented, and to educate participants on how they can contribute to the process.

The culmination of this unique experience is the Annual National Fire and Emergency Services Dinner that will bring together leaders from both the Congress and Administration to pay tribute to our nation's fire and emergency services. The list of previous keynote speakers reads like a Who's Who in American Politics. Last year, President George W. Bush addressed an audience of 2,000 fire service officials, making him the third President to have attended the event. This year, invitations will be extended to President Bush, Vice President Cheney, Secretary of the Department of Homeland Security Tom Ridge, and the leadership of Congress.

Registration material is available on the CFSI website at *www.cfsi.org*

For hotel reservations, please contact the Washington Hilton and Towers at 202-483-3000. Or call CFSI at 202-371-1277 if you have additional questions.

"Shipment" from page 6

(Council of State Governments) Midwestern High-Level Radioactive Waste Committee. This committee, originally organized in 1989, consists of 12 members (all appointed by their respective governors). Additionally, the chair of the Midwestern Legislative Conference has appointed seven legislative members. Indiana State Senator Charles Riegsecker, R-Goshen, fills one of these positions. The purpose of this committee is to identify, prioritize, and work with the DOE to resolve regional issues pertaining to the transport of radioactive materials. Obviously, the ultimate goal is to ensure protection of the health and safety of the public in the Midwest during the shipment of all radioactive materials.

The Committee played a major role in developing the "Planning Guide for Shipments of Radioactive Materials through the Midwestern States". The objectives of the guide are threefold:

- To state the preferences of the Midwestern states regarding the best practices for shipping radioactive materials through the region.
- To provide shippers with a single source of information on the Midwestern states to help in planning shipping activities.
- To improve the efficiency of the transportation process for both the Midwestern states and shippers.

Most importantly, the Committee, through this guide, reinforced the idea that the states' approach to regulating radioactive materials transportation is based on the type of material and the mode of shipment, not on the identity of the shipper or the points of origin and destination of the shipments. As a consequence, a central principle of the planning guide is that, with very few exceptions, all shipments of similar material should be treated in the same fashion. In other words, all shipments of contract-handled TRU waste should be treated in the same manner - regardless of whether the shipments are destined for an interim or a final destination.

The fact that this shipment, as it passed through Indiana, was uneventful, is testament to the competence of all involved in this project.

We anticipate future shipments will be just as uneventful.

Emergency Management, Fire and Building Services and Public Safety Training Foundation Update

The Foundation earned \$130,100 from the sale of 5,204 license plates in 2002. That money is being used to make Indiana a safer place to live. Projects approved by the foundation include emergency equipment for first responders, a grant to start a pilot program for early identification of juvenile firesetters so they can get the help they need, educational programs to teach children safety and support for the Hoosier Burn Camp. Currently there are three prefixes available for the license plate, SH (Safe Hoosiers) and FS (Fire Service), and EM (Emergency Management or Emergency Medical).

Sales figures from the Bureau of Motor Vehicles put the Hoosier Safety plate in eighth place out of the 44 Special Recognition License Plates issued by the state of Indiana.

Annual Employee Recognition Day

The Indiana State Emergency Management Agency, Department of Fire and Building Services, and Public Safety Training Institute held its annual employee recognition program for the year 2002 on February 29th. The prestigious *James C. Pridgen Award of Excellence* was presented jointly to Fran Reiley and Alden Taylor. In 1998 Mr. Pridgen's dedication to public safety was honored by the creation of the Pridgen Award which recognizes the SEMA/DFBS/PSTI employee of the year.



(L) Patrick R. Ralston and (R) James C. Pridgen with award winners Fran Reiley and Alden Taylor.